

Remarks/Arguments

Claims 1-5, 7 and 8 were pending in the present application. No amendments have been made to the claims. No claims have been cancelled. No new claims are submitted for consideration.

Rejections under 35 U.S.C. §103(a)

The Examiner asserts claims 1, 2, 5, 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Japan Patent No. 62251403.

A proper analysis under 35 U.S.C. § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991) (citing *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988)). Both the suggestion and the reasonable expectation of success "must be founded in the prior art, not in the applicant's disclosure." *Id.*

Contrary to the Examiner's assertion, Applicant discloses several times in the present patent application that the recited element "wherein said disk bore further comprises a ratio of said contour depth divided by said bore width of between .04 and .12" does provide an advantage (See col. 2, par. [0014], ll. 8-10, par. [0017], ll. 1-7; col. 3, par. [0019], ll. 1-6), is used for a particular purpose (See col. 1, par. [0002]; col. 2, par. [0014], ll. 8-10, par. [0017], ll. 1-7) and is the solution (See col. 3, par. [0019], ll. 1-6) to a stated problem (See col. 1, par. [0004] - [0007]).

Applicant contends that the recited element "wherein said disk bore further comprises a ratio of said contour depth divided by said bore width of between .04 and .12" of Applicant's independent claim 1 is not "an obvious matter of design choice to a person of ordinary skill in the art". The Figures, Abstract and Constitution of the aforementioned Japan Patent Application fails to teach such a ratio of the contour depth to the bore width and, furthermore, neither motivates nor suggests to one of ordinary skill in the art to experiment and derive such a design having the ratio claimed in Applicant's independent claim 1. Applicant contends that both the suggestion and reasonable expectation of success of the aforementioned ratio applied to a contoured disk bore construction and design is found only in Applicant's disclosure and claims of the present application. As a result, Applicant's claims 1, 2, 5, 7 and 8 are patentable over Japan Patent Application No. 62251403.

The Examiner asserts claims 1, 2, 5, 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over German Patent No. 3400835.

A proper analysis under 35 U.S.C. § 103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991) (citing *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988)). Both the suggestion and the reasonable expectation of success "must be founded in the prior art, not in the applicant's disclosure." *Id.*

Contrary to the Examiner's assertion, Applicant discloses several times in the present patent application that the recited element "wherein said disk bore further comprises a ratio of said contour depth divided by said bore width of between .04 and .12" does provide an advantage (See col. 2, par. [0014], ll. 8-10, par. [0017], ll. 1-7; col. 3, par. [0019], ll. 1-6), is used for a particular purpose (See col. 1, par. [0002]; col. 2, par. [0014], ll. 8-10, par. [0017], ll. 1-7) and is the solution (See col. 3, par. [0019], ll. 1-6) to a stated problem (See col. 1, par. [0004]-[0007])).

Applicant contends that the recited element "wherein said disk bore further comprises a ratio of said contour depth divided by said bore width of between .04 and .12" of Applicant's independent claim 1 is not "an obvious matter of design choice to a person of ordinary skill in the art". The aforementioned German Patent fails to teach such a ratio of the contour depth to the bore width and, furthermore, neither motivates nor suggests to one of ordinary skill in the art to experiment and derive such a design having the ratio claimed in Applicant's independent claim 1. Applicant contends that both the suggestion and reasonable expectation of success of the aforementioned ratio applied to a contoured disk bore construction and design is found only in Applicant's disclosure and claims of the present application. As a result, Applicant's claims 1, 2, 5, 7 and 8 are patentable over German Patent No. 3400835.

The Examiner asserts claims 3 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over German Patent No. 3400835 in view of U.S. Pat. No. 4,648,796 to Maghenzani.

Applicant's dependent claims 3 and 4 are ultimately dependent upon Applicant's independent claim 1.

A proper analysis under 35 U.S.C. § 103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991) (citing *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988)). Both the suggestion and the reasonable expectation of success "must be founded in the prior art, not in the applicant's disclosure." *Id.*

Contrary to the Examiner's assertion, Applicant discloses several times in the present patent application that the recited element "wherein said disk bore further comprises a ratio of said contour depth divided by said bore width of between .04 and .12" does provide an advantage (See col. 2, par. [0014], ll. 8-10, par. [0017], ll. 1-7; col. 3, par. [0019], ll. 1-6), is used for a particular purpose (See col. 1, par. [0002]; col. 2, par. [0014], ll. 8-10, par. [0017], ll. 1-7) and is the solution (See col. 3, par. [0019], ll. 1-6) to a stated problem (See col. 1, par. [0004]-[0007]).

Applicant contends that the recited element "wherein said disk bore further comprises a ratio of said contour depth divided by said bore width of between .04 and .12" of Applicant's independent claim 1 is not "an obvious matter of design choice to a person of ordinary skill in the art". The aforementioned German Patent fails to teach such a ratio of the contour depth to the bore width and, furthermore, neither motivates nor suggests to one of ordinary skill in the art to experiment and derive such a design having the ratio claimed in Applicant's independent claim 1. Applicant contends that both

the suggestion and reasonable expectation of success of the aforementioned ratio applied to a contoured disk bore construction and design is found only in Applicant's disclosure and claims of the present application.

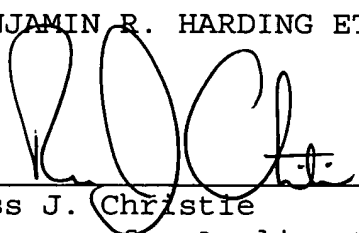
The Maghenzani reference fails to cure the deficiencies present in the aforementioned German Patent reference. The Maghenzani reference fails to teach the aforementioned ratio of the contour depth to the bore width recited in Applicant's independent claim 1 and, furthermore, neither motivates nor suggests to one of ordinary skill in the art to experiment and derive such a design having the ratio claimed in Applicant's independent claim 1.

As a result, Applicant's claims 3 and 4, by virtue of their dependency upon independent claim 1, are patentable over German Patent No. 3400835 in view of U.S. Pat. No. 4,648,796 to Maghenzani.

Should the Director determine that a fee is due, he is hereby authorized to charge said fee to Deposit Account No. 21-0279.

Respectfully submitted,

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Date: November 30, 2006

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on November 30, 2006.


Ross J. Christie